IPSWICH RIVER WATERSHED ASSOCIATION
The Voice of the River
P.O. Box 576
Ipswich, MA 01938

January 16, 2015

Emilie Cademartori
Zoning Board of Appeals
Conservation Commission
Town Hall
Wenham MA 01984

Re: Maple Woods Project

Dear Ms. Cademartori,

Thank you for the opportunity to comment on the proposed Maple Woods Project currently before the Wenham Zoning Board of Appeals and Conservation Commission. As you are aware, we have been following this project since its inception, attended public meetings and met with the developer on several occasions. Before offering specific comments on the project, I would like to provide some background relative to the extreme environmental sensitivity of the site and our position on requests for additional water in flow impaired sub basins within the Ipswich River Watershed.

The Ipswich River is the most flow-depleted river in Massachusetts due to excessive water withdrawals (ground and surface) and other impacts to the natural water balance in the watershed (wastewater and drinking water exports, impervious surfaces, etc.). In addition, the Ipswich River is the lifeblood of the North Shore providing drinking water to 330,000 people every day and supports significant ecological resources. Thus, protecting its water quality is equally critical. It is therefore the positon of the Ipswich River Watershed Association that every new development or redevelopment project does not increase water use/export or negatively impact water quality *in any amount* and ideally, such projects will contribute to improving current conditions.

As you are aware, the project site is adjacent to a stream and associated wetlands which flow into the Ipswich River and is in close proximity to several public drinking water withdrawal locations including wells in the Towns of Wenham, Hamilton and Topsfield, as well as the main intake for the Salem-Beverly reservoir system. In addition, the site is located on a sand and gravel deposit which contains a large groundwater aquifer which connects to these drinking water sources, as well as provides critical base flow to the River during dry periods. In locations such as this, it is particularly important to limit discharges of nitrogen, pharmaceuticals, personal care products, household chemicals, lawn care chemicals, hydrocarbons, salt (deicers) and other contaminants; all of which could be produced by the proposed development. With this backdrop, we have reviewed the application and associated documents and offer the following specific comments.

<u>Water Quantity</u>

- The project at a minimum should offset 100% of its water use through minimization of its use(e.g. ultra efficient fixtures and use of rainwater for toilet flushing) and work with the town and private parties to mitigate the remainder off-site (e.g. through tools such as a water bank).
- Ideally, the project will offset its water use by much better than 100% and approach a ratio of 2 gallons saved for every gallon used which is the common threshold for most water banks.
- The project will minimize its production of stormwater through site design (e.g. minimization of impervious areas) and infiltrate 100% of its stormwater runoff.
- Landscapes should be planted with drought tolerant native species which do not require irrigation (beyond the establishment phase) and irrigation systems should not be used.
- The amount of lawn should be minimized and where required, planted with drought tolerant turf grasses such as fescues.

Water Quality

- The project will adequately treat 100% of its runoff.
- Landscapes should be managed organically without the use of synthetic fertilizers or pesticides.
- Non-pervious surfaces should be minimized and use of salt and chemical deicers should be minimized in favor of sand and environmentally safe deicers.
- Development within the wetlands buffer zone should be minimized and if encroached upon, replaced at a minimum 1:1.5 ratio elsewhere on the property.
- There should be a proactive and ongoing educational effort and systems put in place for residents to divert all hazardous materials from the waste stream with a focus on household cleaners and pharmaceuticals.
- The wastewater treatment system should be the most advanced possible and be designed to remove nutrients and treat pharmaceuticals and hazardous household waste to the extent possible.
- A third party should be contracted with to maintain the stormwater and wastewater treatment systems in perpetuity (it is a virtual guarantee that these systems will fail in the future if managed by the owners).

While some of these measures exceed minimum regulatory requirements, they are readily achievable using modern Low Impact Development Standards and should be required in environmentally sensitive areas such as this. The Ipswich River Watershed Association can advise the developer and/or community on the implementation of these measures and stand ready to assist you in any way to achieve these protections.

Please incorporate these comments into the public record of the hearing on this matter, and please contact me if you have any questions about these comments. Thank you for your consideration.

Sincerely,

Wayne Castonguay
Executive Director